APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,899	10/16/2003	Anil Varma	20-LC-1965 CON/624226-381	7546

			EXAMINER
29391	7590	06/29/2004	VOELTZ, EMANUEL T

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ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *10/16/2003*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

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COMMISSIONER FOR PATEN
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Examiner's Detailed Office Action

This action is in response to patent application number 10/686,899, filed October

16, 2003.

Claims 1-16 have been examined.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on October 16, 2003 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Double Patenting

Non-Statuatory

The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d
1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed.
Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*,
422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be commonly
owned with this application. See 37 CFR 1.130(b).
        Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply
with 37 CFR 3.73(b).

Claims 1-16 are rejected under the judicially created doctrine of double patenting over claims 1-14 of U. S. Patent No. 6,636,771 B1, granted to Varma et al. since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Regarding claim 1

A method for analyzing operational parameter data from a locomotive to correct and/or prevent locomotive malfunctions, the method comprising: receiving a set of operational parameter data from the locomotive; identifying a plurality of distinct anomaly definitions in the set of operational parameter data; generating at least one distinct anomaly cluster from the plurality of distinct anomaly definitions; and associating with said anomaly cluster at least one repair for correcting and/or preventing occurrence of the locomotive malfunction (see claim 1 of '771 patent).

The only difference between the instant claims and the '771 patent are instead of analyzing continuous parameters the instant application is only analyzing operation parameters. There are no unexpected results from analyzing one type of parameter versus another as is the case at hand. It would have been obvious to one of ordinary skill in the art at the time of the invention to analyzing operational parameters versus continuous parameters. It should be noted that operational parameters could be a subset of continuous parameters.

Regarding claim 2,

The method of claim 1 further comprising generating a plurality of weighted repair and distinct anomaly cluster combinations indicative of distinct locomotive malfunctions (see claim 5 of '771 patent).

Regarding claim 3,

The method of claim 1 wherein the associating with said anomaly cluster of at least one repair comprises using the plurality of weighted repair and distinct anomaly cluster combinations to associate said at least one repair for the at least one distinct anomaly cluster (see claim 4 of '771 patent).

Regarding claim 4,

The method of claim 1 wherein the at least one distinct anomaly cluster comprises at least one of a single distinct anomaly and a plurality of distinct anomaly definitions (see claim 2 of '771 patent).

Regarding claim 5,

The method of claim 1 wherein each of the plurality of weighted repair and distinct anomaly cluster combinations are generated from a plurality of cases, each case comprising a repair and at least one distinct anomaly, and each of the plurality of weighted repair and distinct anomaly cluster combinations being assigned a weight determined by dividing the number of times the combination occurs in cases comprising related repairs by the total number of times the combination occurs in said plurality of cases (see claim 3 of '771 patent).

Regarding claim 6,

The method of claim 5 wherein identifying the at least one repair comprises selecting at least one repair using the plurality of weighted repair and anomaly cluster

combinations and adding assigned weights for distinct anomaly clusters for related

repairs (see claim 4 of '771 patent).

Regarding claim 7,

The method of claim 1 wherein said generating a plurality of weighted repair and

distinct anomaly cluster combinations comprises using a plurality of repairs and

operational parameter data including a plurality of anomaly definitions (see claim 5 of

'771 patent).

Regarding claim 8,

The method of claim 1 wherein the receiving operational parameter data

comprises receiving a new operational parameter data and comparing the new operational

parameter data to a prior operational parameter data (see claim 6 of '771 patent).

Regarding claim 9,

A system for analyzing operational parameter data from a malfunctioning

locomotive, comprising: a directed weight data storage unit adapted to store a plurality of

weighted repair and distinct anomaly cluster combinations; a processor adapted to receive

new operational parameter data comprising a plurality of anomaly definitions from the

malfunctioning locomotive; a processor for selecting a plurality of distinct anomaly

definitions from the new operational parameter data; a processor for generating at least

one distinct anomaly definition cluster from the selected plurality of distinct anomaly

definitions; a processor for generating a plurality of weighted repair and distinct anomaly

definition cluster combinations; and a processor for identifying at least one repair for the

at least one distinct anomaly definition cluster using the plurality of predetermined

weighted repair and distinct anomaly definition cluster combinations (see claim 7 of '771 patent).

The only difference between the instant claims and the '771 patent are instead of analyzing continuous parameters the instant application is only analyzing operation parameters. There are no unexpected results from analyzing one type of parameter versus another as is the case at hand. It would have been obvious to one of ordinary skill in the art at the time of the invention to analyzing operational parameters versus continuous parameters. It should be noted that operational parameters could be a subset of continuous parameters.

Regarding claim 10,

The system of claim 9 wherein a single processor unit constitutes said processors (see claim 8 of '771 patent).

Regarding claim 11,

The system of claim 9 further comprising: a processor for generating a plurality of cases from the repair data and the operational parameter data, each case comprising a repair and a plurality of distinct anomaly definitions; a processor for generating, for each of the plurality of cases, at least one repair and distinct anomaly definition cluster combination; and a processor for assigning, to each of the repair and distinct anomaly definition cluster combinations, a weight, whereby weighted repair and distinct anomaly definition cluster combinations facilitate identification of at least one repair for the malfunctioning locomotive (see claim 9 of '771 patent).

Regarding claim 12,

The system of claim 11 wherein the processor for generating the plurality of cases comprises a processor for selecting a repair from the repair data and selecting a plurality of distinct anomaly definitions from the operational parameter data over a period of time prior to the repair (see claim10 of '771 patent).

Regarding claim 13,

The system of claim 11 wherein the processor for assigning weights comprises a processor for determining, for each repair and distinct anomaly definition cluster combination, a number of times the combination occurs in cases comprising related repairs, and a number of times the combination occurs in the plurality of cases (see claim 11 of '771 patent).

Regarding claim 14,

The system of claim 13 wherein the processor for assigning a weight, for each repair and distinct anomaly definition cluster combination, comprises a processor for dividing the number of times the combination occurs in cases comprising related repairs by the number of times the combination occurs in the plurality of cases (see claim 12 of '771 patent).

Regarding claim 15,

The system of claim 13 further comprising; a processor for generating a new case from repair data and operational parameter data, the case comprising a repair and a plurality of distinct anomaly definitions; a processor for generating, for the new case, a plurality of anomaly definition clusters for the plurality of distinct anomaly definitions; and a processor for redetermining a weight for each of the plurality of repair and anomaly definition cluster combinations to include the new case (see claim 13 of '771 patent).

Regarding claim 16,

The system of claim 9 further comprising: a repair log data storage unit adapted to

store a plurality of repairs; and an operational parameter data storage unit adapted to store

a plurality of anomaly definitions (see claim 14 of '771 patent).

Furthermore, there is no apparent reason why applicant was prevented from

presenting claims corresponding to those of the instant application during prosecution of

the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158

USPQ 210 (CCPA 1968). See also MPEP § 804.

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. The various patents are cited for showing the general state of the art in

analyzing fault data.

Correspondence Information

Any inquiries concerning this communication or earlier communications from the

examiner should be directed to **Emanuel Todd Voeltz** who may be reached via
telephone at

(703) 305-4563. The examiner can normally be reached Monday through Friday between
the

hours of 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send an Official facsimile transmission, please send it to **(703)**

872-9306. If you would like to send a Non-Official (draft) facsimile transmission the fax

is **(703) 746-5104**. If attempts to reach the examiner by telephone are unsuccessful, the

Examiner's Supervisor, **Anthony Knight**, may be reached at **(703) 308-3179**.
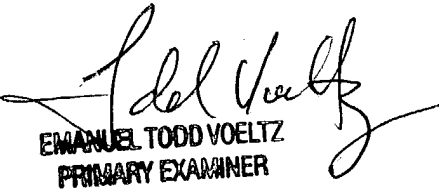
Any response to this office action should be mailed too: **Director of Patents and**

Trademarks Washington, D.C. 20231.

Moreover, hand-delivered responses should be delivered to the Receptionist,
located

on the **fourth floor of Crystal Park 11, 2121 Crystal Drive Arlington, Virginia**.

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Patent & Trademark Office

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PRIMARY EXAMINER